11 Dec

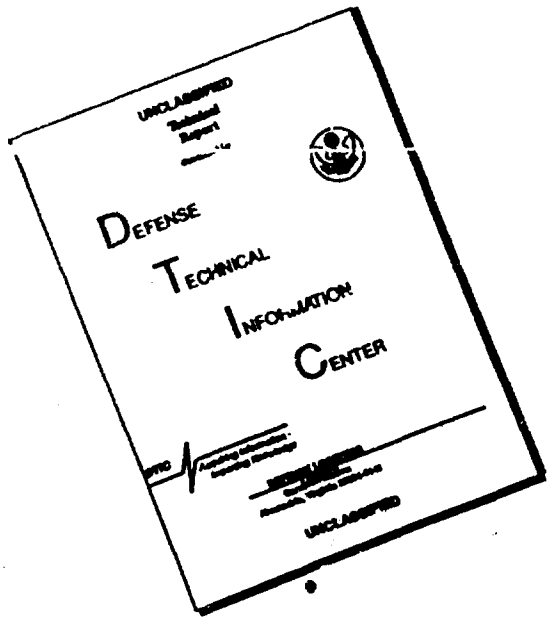
Environmental Impact Analysis Process

ENVIRONMENTAL ASSESSMENT FOR THE FORCE STRUCTURE ACTIONS AT MARCH AIR FORCE BASE

NOVEMBER 1989

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS, STRATEGIC AIR COMMAND
OFFUTT AIR FORCE BASE, NEBRASKA 68113-5001

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

Air Force
Environmental Planning Division
(HQ USAF/CEVP)

Room 5B269
1260 Air Force Pentagon
Washington, DC 20330-1260

16 JUL 93

MEMORANDUM FOR DTIC (Acquisitions)
(ATTN: Patt Mauby)

SUBJ: Distribution of USAF Planning Documents Forwarded on 1 July 93

ALL the documents forwarded to your organization on the subject date should be considered Approved for Public Release, Distribution is unlimited (Distribution statement A).

Jack Bush, GM-14

Mr. Jack Bush
Special Projects and Plans
703-697-2928
DSN 227-2928

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

AFB	Air Force Base
AFRES	Air Force Reserve
AFR	Air Force Regulation
AICUZ	Air Installation Compatible Use Zones
ANG	Air National Guard
APZ	Accident Potential Zone
AREFW	Air Refueling Wing
CEQ	Council on Environmental Quality
CO	Carbon monoxide
CUD	Compatible Use District
dB	Decible
EA	Environmental Assessment
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
FAC	Forward Air Control
FONSI	Finding of no significant impact
FY	Fiscal Year
IFR	Instrument flight rules
I-215	Interstate Highway 215
HQ SAC	Headquarters, Strategic Air Command
NEPA	National Environmental Protection Act
NOI	Notice of Intent
NOX	Nitrogen oxide
NRHP	National Register of Historic Places
NZ	Noise Zones
PB	Lead
PM	Particulate matter
SAC	Strategic Air Command
SCAB	South Coast Air Basin
SIOP	Single Integrated Operation Plan
SOX	Sulphur oxide
TFG	Tactical Fighter Group
TOG	Total Organic Gases
USFWS	U.S. Fish and Wildlife Service
VFR	Visual flight rules

EXECUTIVE SUMMARY

This Environmental Assessment analyzes the impacts of the force structure actions at March Air Force Base (AFB), California. These actions include the withdrawal of 14 Strategic Air Command KC-135A aircraft in the first quarter of Fiscal Year 1990 (FY 90\1), the gain of 2 Air Force Reserve KC-135E aircraft in FY 90\3, a change in primary assigned aircraft from 24 Air National Guard F-4E's to 18 OA-10's in FY 90/2. With this change in primary assigned aircraft, the Air National Guard mission would change from close air support to forward air control. The associated change in personnel at March AFB will involve a decrease of 560 active duty (full-time) military personnel, a decrease of 98 part-time military personnel, and an increase of 3 full-time civilian personnel.

March AFB is a Strategic Air Command installation. It is located in southern California in Riverside County about 50 miles east of Los Angeles. The base comprises an area of about 7,000 acres in an area that is experiencing rapid urban development.

This Environmental Assessment identified the following primary concerns to consider for the force structure changes: air safety, cultural resources, ecology, socioeconomics, air quality, and aircraft noise.

Air Safety. The force structure action would result in a 13 percent reduction in average daily aircraft operations. The maintenance of the Accident Potential Zones would, however, render the impacts of this action insignificant.

Cultural Resources. No land or structure altering activities would occur as the result of the force structure action. Therefore, no cultural resources will be affected.

Ecology. No loss of terrestrial habitat would be caused because no land altering activities would occur. The force structure action would result in minor benefits to vegetation and wildlife because of the reduced air pollution and noise, respectively.

Socioeconomics. The force structure action would not result in socioeconomic impacts that are related to natural or physical effects. Socioeconomic impacts were not, therefore, forecast.

Air Quality. The force structure action would result in very small reductions (less than 0.1 percent) for total emissions in the South Coast Air Basin.

Aircraft Noise. The force structure action would result in a substantial reduction in the noise levels in areas surrounding the installations, however, these contours should not be used for land use planning purposes.

The regional and local impacts were identified, evaluated, and found to be insignificant; therefore, an environmental impact statement (EIS) is not required.

SECTION 1

DESCRIPTION OF AND NEED FOR THE PROPOSED ACTION

1.0 INTRODUCTION

The purpose of these proposed actions is to address those previously programmed force structure actions at March AFB not associated with base realignment as identified by the Base Realignment and Closure Commission (Public Law 100-526, Title II). These force structure actions are addressed in this environmental assessment as a separate NEPA document, but the cumulative impacts of these force structure actions will be included in the EIS for the realignment of March AFB.

The portion of the proposed action which removes the KC-135A aircraft and transfers these planes to the AFRES was recommended by the United States Senate in the Senate Defense Appropriations Bill from the 2nd Session of the 100th Congress (Senate Report 100-402, Calendar Number 763, page 184). The Congressional recommendation was based upon the utility of the KC-135 aircraft with respect to its mission for national defense. The removal and transfer of the KC-135As was ultimately mandated by the President's FY 89 Budget.

In accordance with the Congressional mandate, the Department of the Air Force proposed that 14 KC-135As would be removed from March AFB. Additionally, the National Guard Bureau has determined there is a need to replace the F-4Es with the OA-10s based on the projected expiration of the useful service life of the F-4E aircraft and a mission change from close air support to forward air control.

1.1 LOCATION OF PROPOSED ACTION

March Air Force Base (AFB), a host base for the Strategic Air Command (SAC), is the location of the proposed action. Figures 1-1 and 1-2 illustrate the location of March AFB by region and vicinity, respectively. The base is bordered on the west/northwest by the City of Riverside, on the northeast, east, and southeast by the City of Moreno Valley, and on the south by the City of Perris (with the exception of small unincorporated areas of land under the jurisdiction of Riverside County which are interspersed around the outside of the base boundary in the areas described above). The area west/southwest of March AFB also consists of unincorporated land under the jurisdiction of Riverside County.

The area of March AFB consists of approximately 7,000 acres which is divided in a north-south direction by Interstate Highway 215 (I-215) as depicted in Figure 1-3. The Main Base is that portion which is located east of I-215. It contains the oldest and largest concentration of facilities which provide operation and support functions. The portion of the base which is west of I-215, is appropriately referred to as West March. Facilities located on West March include the 15th Air Force Headquarters, the SAC Professional Military Education Center, the Air Force Band Center, the weapons storage area, the golf course, and the military family housing community known as Arnold Heights.

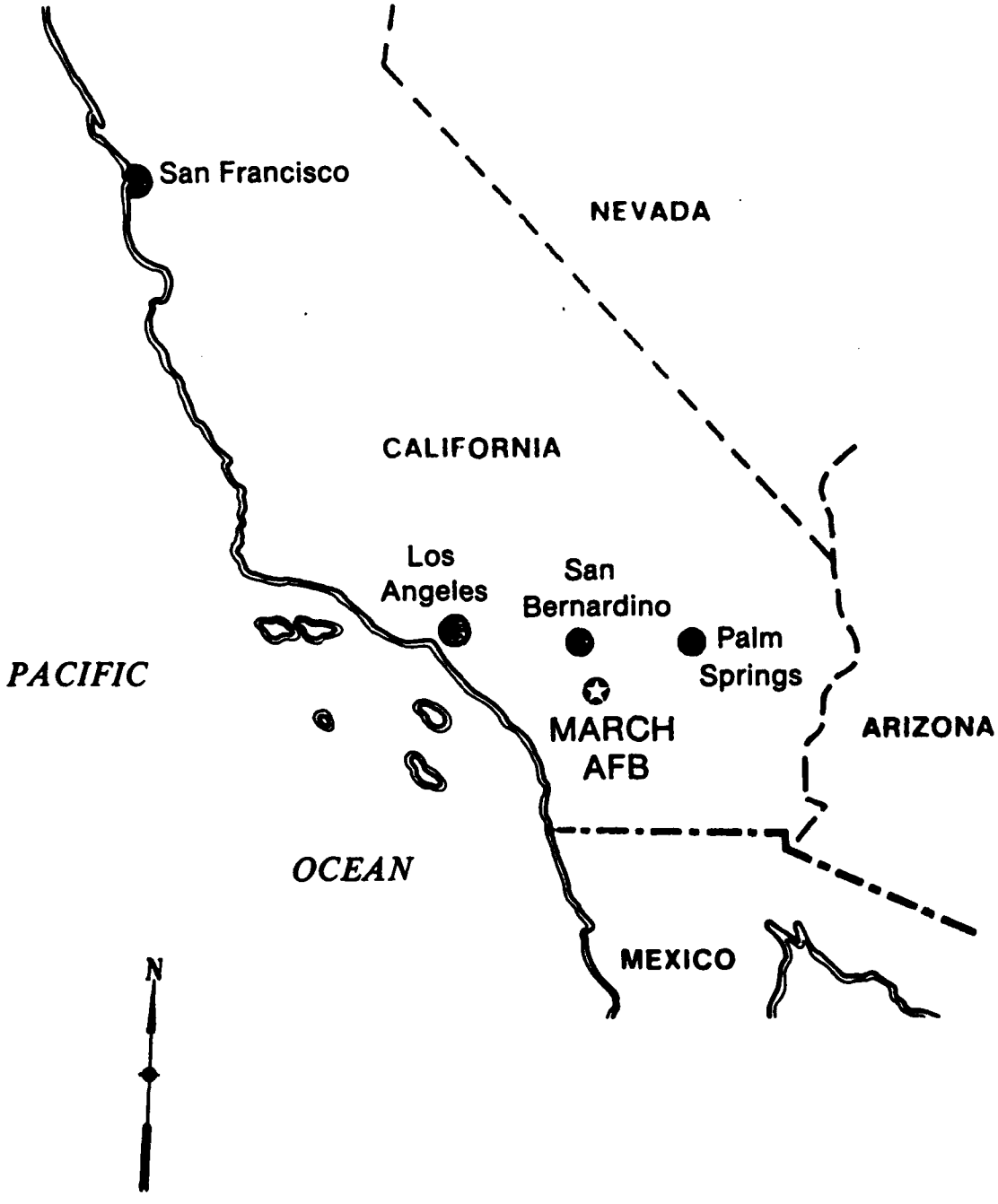


FIGURE 1-1
Regional Map
March AFB

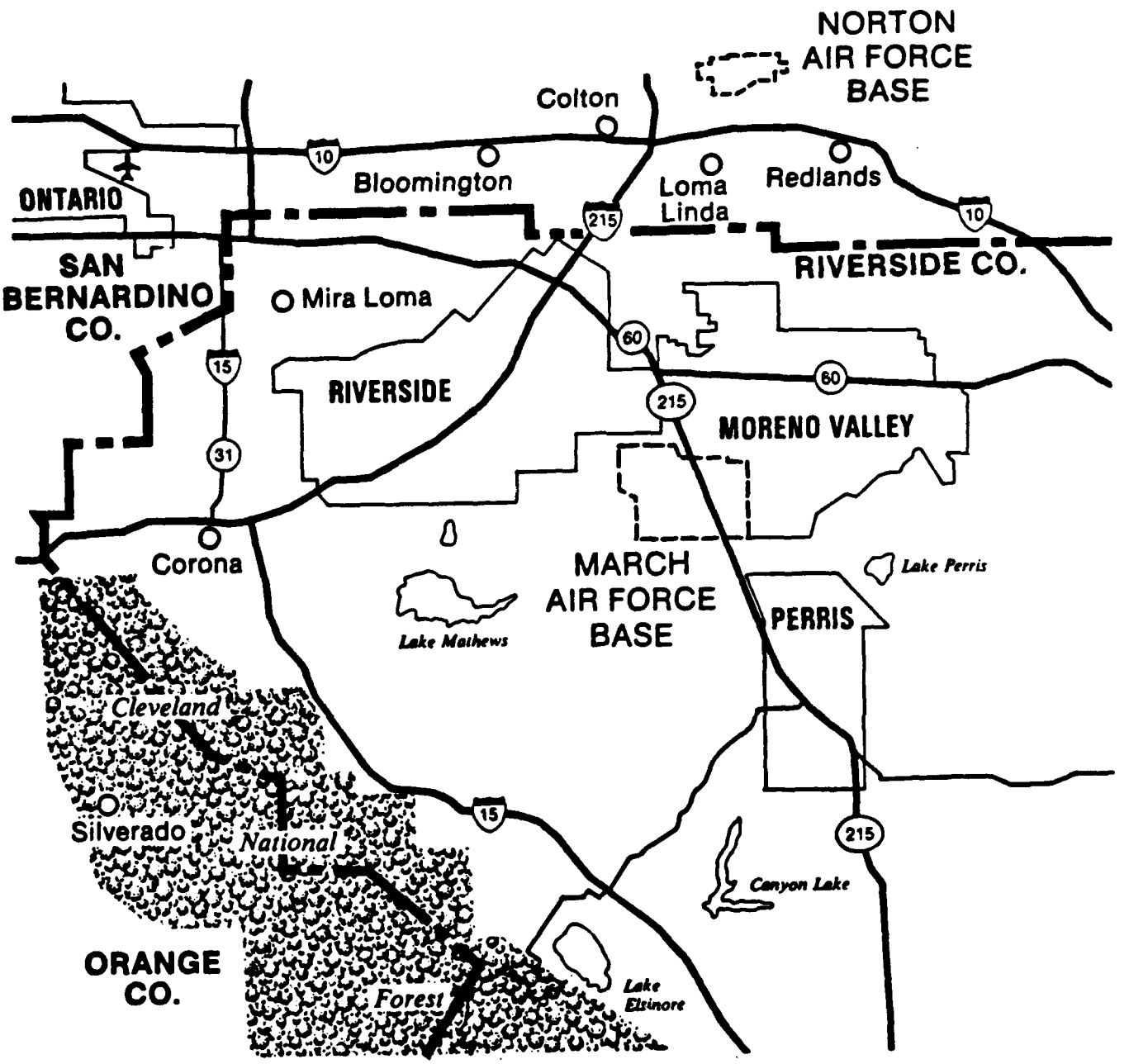


Figure 1-2
Vicinity Map
March AFB

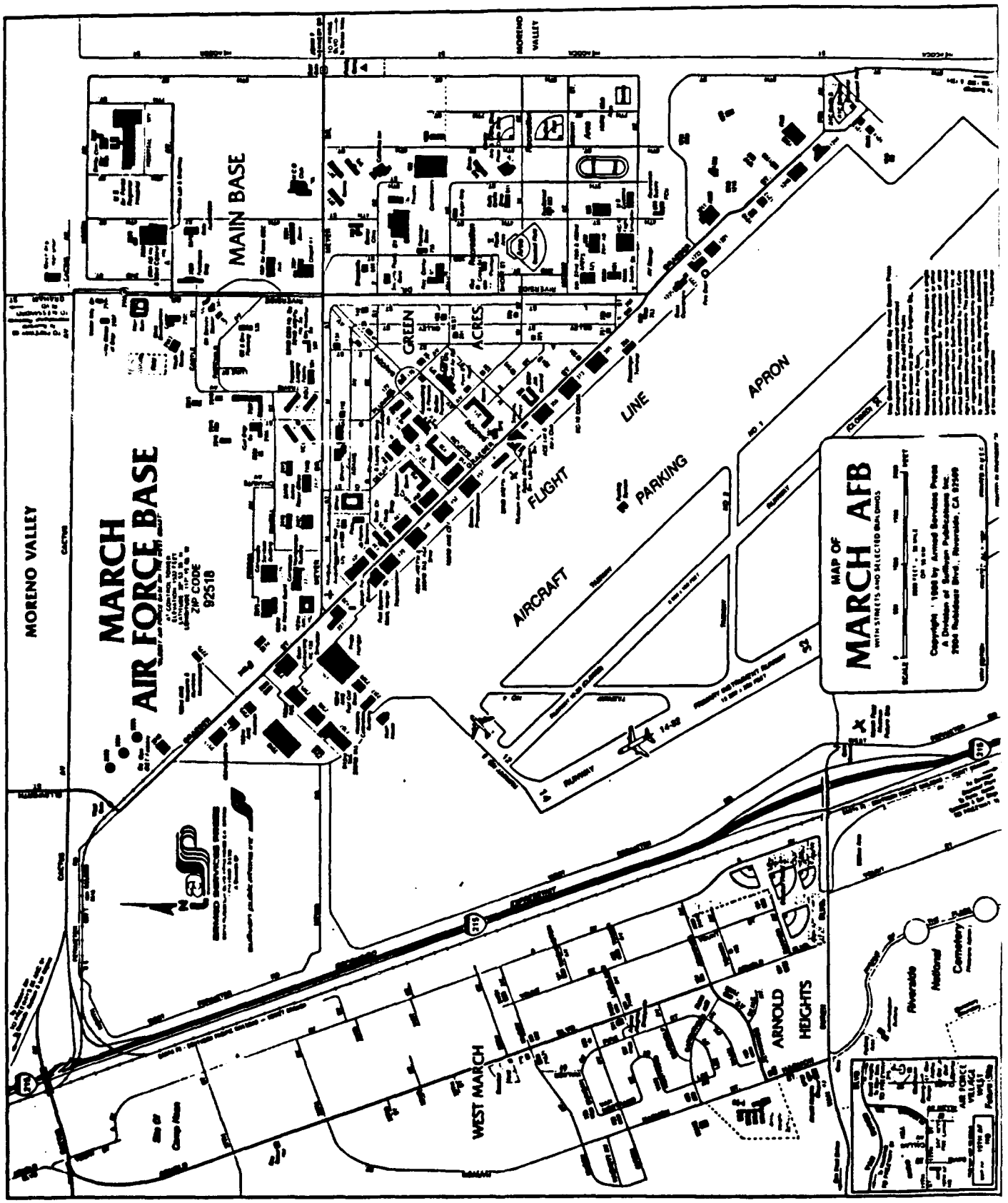


Figure 1-3
Site Map
March AFB

1.2 RELEVANT FEDERAL, STATE, AND LOCAL STATUTES, REGULATIONS OR GUIDELINES

The National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190) as implemented by the President's Council on Environmental Quality (CEQ) (40 CFR Parts 1500 through 1508) promulgates regulations that require federal agencies to analyze the potential environmental impacts of proposed actions and alternatives. This regulation also requires the inclusion of the agency's recommendation on whether to proceed with the proposed action or one of its alternatives.

Department of Defense regulation 32 CFR, Part 214 implements the CEQ regulations and provides policy and procedures for the consideration of the environmental impacts of Department of Defense actions. In addition, the Department of the Air Force provides regulations (AFB 19-2) for the Air Force environmental impact analysis process (EIAP). AFR 19-2 contains policies, responsibilities, and specific procedures for Air Force implementation of the NEPA within the United States and its territories. This regulation applies to all Air Force activities and the Air National Guard (ANG).

SECTION 2

ALTERNATIVES CONSIDERED INCLUDING THE PROPOSED ACTIONS

2.0 PROPOSED ACTION

The proposed actions include the withdrawal of 14 KC-135A aircraft (SAC) in FY 90/1, the gain of 2 KC-135E aircraft (AFRES) in FY 90/3, and a change in primary assigned aircraft from 24 Air National Guard F-4E's to 18 OA-10's in FY 90/2. With this change in primary assigned aircraft, the Air National Guard mission would change from close air support to forward air control. The associated change in personnel at March AFB will involve a decrease of 560 active duty (full-time) military personnel, a decrease of 98 part-time military personnel, and an increase of 3 full-time civilian personnel. The reasoning in support of the proposed actions as the preferred actions are presented in the discussions that follow.

The KC-135 aircraft are flown by the 22nd Air Refueling Squadron of the 22nd Air Refueling Wing in the performance of its mission. Its mission is to develop and maintain the capability to conduct air refueling operations in support of Command objectives to meet Single Integrated Operations Plan (SIOP) mating and ranging requirements for National Defense. Their mission also includes supporting the Department of Defense in many contingency situations such as strategic force projection and strategic force mobility.

The SIOP mating and ranging consists of assigning specific targets to a given base and identifying the tanker support needed to ensure bombers have maximum capability and flexibility. Four principal operational factors emerge to determine mating and ranging capabilities: (1) distance to target; (2) number of bombers available; (3) unrefueled range of the bombers; and (4) the availability of adequate tanker resources. A base's geographic location and support capability have a major impact on each of these operational factors (Sakaldasis 1986). The mating and ranging capabilities of the KC-135's assigned to March AFB had been dependent upon the bombers at Mather. The bombers at Mather were retired in FY 89/4. In accordance with the principal operational factors for mating and ranging, the utility of the KC-135A's has been identified as no longer necessary in support of the active duty Air Force flying mission at March AFB.

The Department of the Air Force has ordered the inactivation of the 22nd Air Refueling Squadron at March AFB, effective 1 December 1989. Effective on the date of inactivation, the unit will revert to the control of the Department of the Air Force (Special Order GB-066, 1989). The KC-135A's will be reengined and reassigned to Air National Guard and Air Force Reserve units after the aircraft have undergone modification. The bases and units which are scheduled to receive these aircraft are Phoenix (161 AREFG), 2 primary assigned aircraft (PAA); Rickenbacker (160 AREFG), 2 PAA; Eielson (168 AREFS), 4 PAA; March (452 AREFW), 2 PAA; Mather (940 AREFG), 2 PAA; and Grissom (434 AREFW), 2 PAA.

By assigning 2 KC-135E aircraft to the 452nd Air Refueling Wing (AREFW) of the Air Force Reserve, this proposed action will allow the AFRES to maintain single KC-135 configuration (all KC-135 aircraft assigned to the 452nd AREFW will be the same "E" series). The mission of the 452nd AREFW is to provide air refueling tankers and crews to support SAC's global air refueling commitment. It flies the KC-135 aircraft in performance of its mission.

The 163rd Tactical Fighter Group (ANG) flies the F-4Es. These aircraft are reaching the end of their service life and the transition of the unit to OA-10 aircraft would increase the Forward Air Control (FAC) capability of the Air Force Reserve component and add to the overall FAC capability of the tactical air forces. The mission of the 163rd Tactical Fighter Group would change with the transition from F-4Es to OA-10s from close air support to forward air control, respectively..

Personnel will be reassigned according to special instructions furnished the Commander-in-Chief, Strategic Air Command (CINCSAC) (Special Order GB-066, 1989). The manpower changes of these proposed actions are presented in table 2-1. As shown on the table, the AF Reserve will gain 87 part-time drill personnel and 46 full-time civilian personnel while the California Air National Guard will lose 12 full-time personnel, 185 part-time drill personnel and 37 full-time civilian personnel.

An indirect benefit to these proposed force structure actions would be the additional space made available for the Norton AFB flying mission when it is transferred to March AFB.

Table 2-1
Manpower Changes

Action	Active (full time)	Drill (part time)	Civilian (full time)
- 14 KC-135As	- 548	0	- 6
+ 2 KC-135Es	0	+ 87	+ 46
- 24 F-4Es	- 12	- 185	- 37
+ 18 OA-10s	0	0	0
TOTAL (Net)	- 560	- 98	+ 3

2.1 ALTERNATIVES

2.1.1 Alternative 1.

This alternative proposed to leave F-4 type aircraft in place at March AFB. By implementing this alternative, the Forward Air Control (FAC) capability of the Air National Guard component could not be expanded as planned. This alternative does not meet current mission requirements. In addition, the existing F-4 aircraft would still have to be replaced because their useful life is expiring. For these reasons, this alternative has been eliminated.

2.1.2 No Action Alternative.

The No Action Alternative is the continued operation of the assigned aircraft at March AFB in their present functional capacity and with unchanged mission objectives. When the realignment from Norton occurs, therefore, considerable additional expense would be incurred to accommodate the continued operation of these aircraft. This would involve new fuel systems and ramps for each plane, additional hangar space, and additional dormitories. Total additional cost would be $40 million. In addition, with the continued operation, March AFB would be unable to accommodate the entire realignment of aircraft from Norton AFB without relocating some of the tenant activities. Only 20 of the 35 Norton aircraft could be accommodated at March under existing conditions. This would result in additional expense at other airbases. By taking no action, objectives of the Air Force, Air Force Reserve, and Air National Guard in support of the national defense mission would not be met. Therefore, the No Action Alternative has been eliminated.

SECTION 3

AFFECTED ENVIRONMENT

3.0 INTRODUCTION

This section presents a description of the relevant environmental and socioeconomic characteristics of the area that would be affected by the proposed force structure actions at March AFB. The selected characteristics are those that are considered to be related to potential impacts. These characteristics include cultural resources, ecology, socioeconomics, air quality, aircraft noise, and air safety.

3.1 HISTORY

Through the efforts of the Riverside community, Alessandro Aviation Field was officially opened on 1 March 1918 as part of the War Department's national buildup of aviation training facilities. On 20 March 1918 Alessandro Aviation Field was renamed March Field in honor of 2nd Lt Peyton C. March, Jr. Following World War I, the base was closed for approximately four years and was reactivated in 1927 as a private flying school. In 1938, March Field became the central base for West Coast bombing and gunnery training.

During World War II March Field was an operational fighter base and continued in that capacity until SAC took over control in 1949. The 22nd Bombardment Wing was assigned as the senior host tactical unit and the 15th Air Force was transferred to March AFB at about the same time. The base was active during the Korean Conflict in the 1950s and played a heavy role in the Southeast Asia conflict in the 1960s and early 1970s.

In 1976 the first Reserve unit, the 452nd Air Refueling Wing (AFRES), was transferred to March AFB. The 163rd Tactical Air Support Group of the California National Guard moved to March AFB in the 1980s. In 1983 and 1985 the Regional Operations Control Center (ROCC) became operational and the 943rd Tactical Airlift Group was reactivated, respectively. Historically, the base has served as a primary flying and anti-aircraft training school, tactical bomber and pursuit training base, aircraft test base, and as a key installation of the Strategic Air Command.

In late 1947 March Field was redesignated March AFB when the Department of the Air Force was established and, as the oldest Air Force base in the West, has continued to be a host base for the Strategic Air Command. Units which have Host Tenant Support Agreements with March are the 452nd Air Refueling Wing (AFRES), the 943rd Tactical Airlift Group (AFRES), the 163rd Fighter Group (ANG), the 15th Air Force, the Southwest Air Defense Sector (TAC), the ROCC, an Air Force Element (AFELM) of the Airborne Command Post for the U.S. Commander-in-Chief, Pacific (USCINCPAC), the 82nd Flying Training Wing/OLA (Accelerated Copilot Enrichment Program), the U.S. Customs Service, U.S. Customs Aviation Division West, U.S. Army Corps of Engineers, U.S. Post Office, VA Cemetery, Air Force Commissary (AFCOMS), and the Army-Air Force Exchange Service (AAFES).

3.2 CULTURAL RESOURCES

A preliminary historical inventory of the Main Base was completed in 1985 (Fields and Silverman Architects). The Air Force considers the portion of the base within the original square mile laid out in 1918 to be a historic district but has not officially nominated it for inclusion on the National Register of Historic Places (NRHP).

A number of small surveys have been conducted over the past seven years for small parcels of land on the base and adjacent to the base. The results of these are available at the base and at the Archeological Research Unit at the University of California, Riverside. In some surveys, archeological sites were discovered but were not considered eligible for inclusion on the NRHP. In all other surveys, no sites were discovered. Because of this, it is not anticipated that NRHP eligible sites would be located on the remaining portion of the Main Base.

3.3 ECOLOGY

3.3.1 Vegetation

Of the nearly 7,000 acres of land on base, 19 percent is land under buildings, roads, parking, and airfield pavements; 13 percent is improved grounds such as lawns, landscaped areas, golf courses, etc.; 24 percent is land where low level maintenance occurs for operational reasons; and 44 percent is land on which no development or operational maintenance occurs.

Three general plant communities exist on these unimproved lands: grassland, disturbed shrubland, and riparian/wetland (U.S. Fish and Wildlife Service [USFWS] 1989a). More than two-thirds of these are grasslands. Unplowed land around rock outcrops and on steeper slopes, areas adjacent to drainages, and edges around gravel pits support remnants of coastal sage scrub shrublands. Riparian/wetland vegetation occurs in very small areas along drainages. Most of the land has been plowed, disked, mowed, or burned in the recent past, which has greatly affected plant composition. No endangered plant species are known to exist.

The grasslands are dominated by bromegrasses. Oats, barley, and fescues are locally abundant. Locally common forbs and herbs include filaree, tarweed, vinegar weed, dove weed, spurge, mustard, and Jimson weed. In a few localities there are widely spaced shrubs among the grasses. Scattered shrubs include California buckwheat, matchweed, California sage brush, and horehound.

Most of the shrublands are comprised of widely scattered shrubs with interspersed grasses and open areas. The scrub remnants are heavily dominated by California buckwheat. Additional perennials include matchweed, sagebrush, and locally conspicuous stands of valley cholla. The more herbaceous species listed above also integrate into the shrublands.

The riparian/wetland vegetation occurs in narrow bands along the bottoms of drainage channels. Lawn irrigation runoff appears to be a significant factor in the proliferation of the riparian strip in the drainage ditch along the east side of the base. Common components include black willow, red willow, arroyo willow, sandbar willow, Fremont cottonwood, mulefat, and narrow-leaved cattail.

3.3.2 Fish and Wildlife

March AFB has no lakes, ponds, or streams to support aquatic life. The most common mammals occurring on March AFB are California ground squirrels, Audubon cottontail, black-tailed jack-rabbit, red fox, coyote, Botta's pocket gopher, deer mouse, California pocket mouse, long-tailed weasel, striped skunk, and Stevens' kangaroo rat.

More than 90 species of birds occur on the base and in the surrounding area. Species observed on base during July 1989 included turkey vulture, northern harrier, Cooper's hawk, red-shouldered hawk, red-tailed hawk, golden eagle, American kestrel, prairie falcon, rock dove, mourning dove, barn owl, burrowing owl, Cassin's kingbird, horned lark, American crow, common raven, northern mockingbird, loggerhead strike, blue grosbeak, lazuli bunting, western meadowlark, northern oriole, and house finch (USFWS, 1989a).

The burrowing owl is protected by the Migratory Bird Treaty Act of 1918. Burrowing owl families are known to be on base. This species is on the decline elsewhere in southern California. The coastal black-tailed gnatcatcher, another declining species thought to possibly occur on base, is no longer suspected of occurring on base (USFWS, 1989a). This is because of the quite limited extent of coastal sage scrub shrubland on base.

Reptiles commonly observed on base are the western fence lizard and the side-blotched lizard. Other species are likely or suspected to occur on base also.

The Stephens' kangaroo rat is a federally listed endangered species. In the summer of 1989, the Air Force funded a survey of March AFB for the Stephens' kangaroo rat. The west side of the base contains one of the ten significant acreages of habitat in the known current range of the Stephens' kangaroo rat (O'Farrell, undated). The survey was conducted by the Laguna Niguel Field Office of the USFWS.

Stephens' kangaroo rat habitat on base is sporadically distributed, which is typical range-wide. Much of the grassland is believed to be too dense to support uniform densities. Their presence was in more open areas that were quite small. There are two relatively large areas of uniformly dense habitation on the west side of the base plus several much smaller areas. The U.S. Fish and Wildlife survey of the west side of the base identified low density populations of the rat. No sign of current habitation was observed on the east side of the base, although prime habitat for the Stephens' kangaroo rat has been identified which provides the potential for such habitation.

Local concentrations varied from a few to several burrows in 1,000 square meters of habitat to 21 active burrows in 1,000 square meters in the habitat adjacent to Van Buren Boulevard.

There are several areas on the base that appear suitable for habitation or habitation in much greater densities than the sign of presence indicates. The USFWS believes this is probably because of recent land management practices including plowing and disking. For example, habitat on the fringe of the golf course appears quite suitable, but is currently unoccupied, while marginal habitat just across the road is less disturbed and is inhabited.

3.4 SOCIOECONOMICS

3.4.1 Impact Area

The operation of March AFB affects the economy and socioeconomic factors in nearby communities. These nearby communities include Moreno Valley, Perris, and Riverside.

3.4.2 Area Economy

Area economic growth has been strong in all important sectors in recent years. Very strong growth was experienced in contract construction, manufacturing, and government. The sectors of farm workers, agricultural services, forestry, fishing, and other, mining, and transportation and other public utilities declined during the period. Government is the largest single contributor to the area economy. The next highest contributor is non-retail services. Together these two sectors comprise slightly over 40 percent of the area's income. Retail trade and retail services accounted for slightly more than one-half of the total employment. Farm workers, agricultural services, forestry, fishing, and mining contribute a relatively small amount to the economy, comrising about 8 percent of the area's total income.

Although the area has been experiencing strong economic growth, it has also experienced fairly high unemployment rates during recent years. In 1986 the annual average unemployment rate was 7.2 percent. The highest level recently recorded was 12.9 percent in 1982.

3.4.3 Population

Growth in the region surrounding March AFB has been substantial since 1960. The population of Riverside County has more than tripled since that time and was slightly over 1,000,000 in 1988. The average annual growth rate in the county was 4.4 percent during the period between 1960 and 1988. Moreno Valley, Riverside, and Perris grew at rates of 7.5, 3.3, and 5.9 percent, respectively, per year between 1960 and 1988.

3.5 AIR QUALITY

March AFB is located in the South Coast Air Basin (SCAB). The basin contains Orange County, and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties. SCAB fails to meet the Federal air quality standards for four of the six criteria pollutants. The 1985 emissions for these four pollutants are shown in table 3-1 for SCAB and Riverside County. The basin is in compliance with Federal standards for sulfur dioxide (SOX) and lead (PB). Ozone levels in the SCAB are approximately three times the Federal standard of 0.12 parts per million (ppm) for a one hour period. Carbon monoxide (CO) concentrations in the Basin are about two times the Federal standard of 9.5 ppm for an 8 hour period. Fine particulate matter (PM) is about 80 percent above the Federal standard of 150 micrograms per cubic meter. Nitrogen dioxide (NOX) exceeds the Federal standard of 0.0534 ppm annual arithmetic mean by about 2 percent. The 1985 emissions are shown in table 3-1 for SCAB and Riverside County.

Table 3-1
Air Pollutant Emissions
1985 Tons/Day

	TOG[1/]	CO	PM	NOX
Riverside County	149	324	138	54
SCAB	2,100	5,430	1,645	1,040

1/ Total organic gases

3.6 AIRCRAFT NOISE AND AIR SAFETY

The primary airborne unit at March AFB is the 22nd Air Refueling Wing (AREFW) which is responsible for worldwide air refueling operations. Its mission is to develop and maintain the capability to conduct air refueling operations in support of SAC military objectives. It also supports the Department of Defense in contingency situations, such as strategic force projection and mobility. These operations are conducted with the KC-10A Extender and the KC-135 Stratotanker. A summary of all flying units and their missions are as follows:

- 22nd ARFEW - air refueling, proficiency training, and cargo transport
- 452nd ARFEW - air refueling, proficiency training, and cargo transport
- 943rd Tactical Airlift Group - over water training, proficiency training, and tactical support airlift
- 82nd Flying Training Wing/Operational Location Alpha (FTW/OL-A) - proficiency training

- 196th Tactical Fighter Group (TFG) - instrument training, air combat, close air support, air/ground gunnery, and aircraft intercepts

- U.S. Customs - aircraft intercepts, border patrol, and aerial surveillance

- March Aero Club - training and recreational flying

The December 1988 baseline aircraft operations, by units, assigned to March AFB are presented in Table 3-2. The aircraft type and annual sorties are also presented. A sortie consists of one takeoff and one landing on a flight that is either close pattern around the runway or an extended mission away from the immediate area. There is a lesser amount of activity generated by transient military aircraft and commercial contract aircraft.

Table 3-2
Baseline Aircraft Operations

Unit	Aircraft Type	Annual Sorties
22nd AREFW	KC-10	960
452ND AREFW	KC-10/KC-135A	1,452/745
943rd TAG	C-130B	891
82nd FTW/OL-A	T-38	1,600
196th TFG	F-4E	3,200
U.S. Customs	UH-60, Bell 206, and Cessna 340/210	800
March Aero Club	PA28, PA23, T-34, O-2B, AC-14, and C-182	1,800

Source: March AFB, 1989

While Air Force responsibilities toward the community are numerous and diverse, those concerning aircraft noise and accident potential pose unique problems. Neither can be completely eliminated as long as aircraft are flying. However, self-imposed control of aircraft operations minimize the effects of noise and accident potential, particularly in conjunction with a cooperative planning effort with the surrounding community.

The Air Force has addressed the noise and air safety issue through its Air Installation Compatible Use Zone (AICUZ) report for March Air Force Base, dated 8 August 1983. The report is currently being updated to reflect aircraft operations as of December 1988. This program examines and evaluates the aircraft noise and accident potential effects of the mission at March AFB. Additionally, it is used to develop planning mechanisms to ensure the health, safety, and welfare of the citizens of the surrounding communities, as well as to maintain the operational capabilities of March AFB. The program provides a guide for compatible land use relationships within the operational area of March AFB, inclusive of the over-flight areas of the surrounding communities. The AICUZ program is applied to all Air Force bases within the United States.

The AICUZ report for March AFB provides guidelines for compatibility of land uses within the noise zones. These are made available to adjoining communities.

The aircraft noise environment and contour map used for this EA are based on all aircraft operations at March AFB as of December 1988. This reflects operations prior to the force structure actions. The noise contour mapping for this baseline is shown on Figure 3-1. Contours used are 65 dB and greater using the Ldn noise metric.

The updated AICUZ report will address noise at the base and in the surrounding area. It will examine and evaluate aircraft noise as well as the accident potential of aircraft operations. Accident Potential Zones (APZ) and Noise Zones (NZ) are identified with recommendations for noise reductions in buildings, compatible and incompatible land uses, and recommended concentrations of persons as a basis for planning guidance. Additionally, the report is used to develop planning mechanisms to ensure the health, safety, and welfare of the citizens of the adjacent communities. The report documents these recommendations within the aircraft operational areas, inclusive of the overflight areas of the surrounding communities. These communities include Moreno Valley, Perris, and Riverside. Riverside County is also included. The AICUZ report for March AFB will provide a complete explanation of zones and the program. The AICUZ report for March AFB provides a more complete explanation of the zones and the program.

Recommendations within the current AICUZ report are implemented by the adjoining municipalities to prevent incompatible development. Residential construction is generally allowed in those areas below the 60-dB zone without constraint. Construction within zones 60-dB or greater may be allowed with conditional approval by the municipality requiring noise attenuation to 45-dB within the structure. Generally, the communities and the county have been cooperative and have implemented the AICUZ program. This is reflected in their existing land use zoning and construction activity since implementation of AICUZ.

3.6.1 Aircraft Noise

Noise is generated from aircraft flight and on the ground operations. At March AFB, operations are evaluated regularly to maintain noise levels at a minimum, both on and off the base. Alteration of flying and maintenance rules as well as procedures are examples of the noise awareness which prevails at March AFB.

Flight tracks flown under visual flight rules (VFR) avoid overflights of the City of Perris and the Val Verde School. Aircraft turn radii are kept as tight as operationally feasible to reduce the noise exposure to the higher population areas. Whenever possible, aircraft are flown away from the population centers of both the base and surrounding communities. Aircraft maintenance run-up of engines are not performed after 10 p.m. or before 6 a.m. except for high-priority mission requirements.

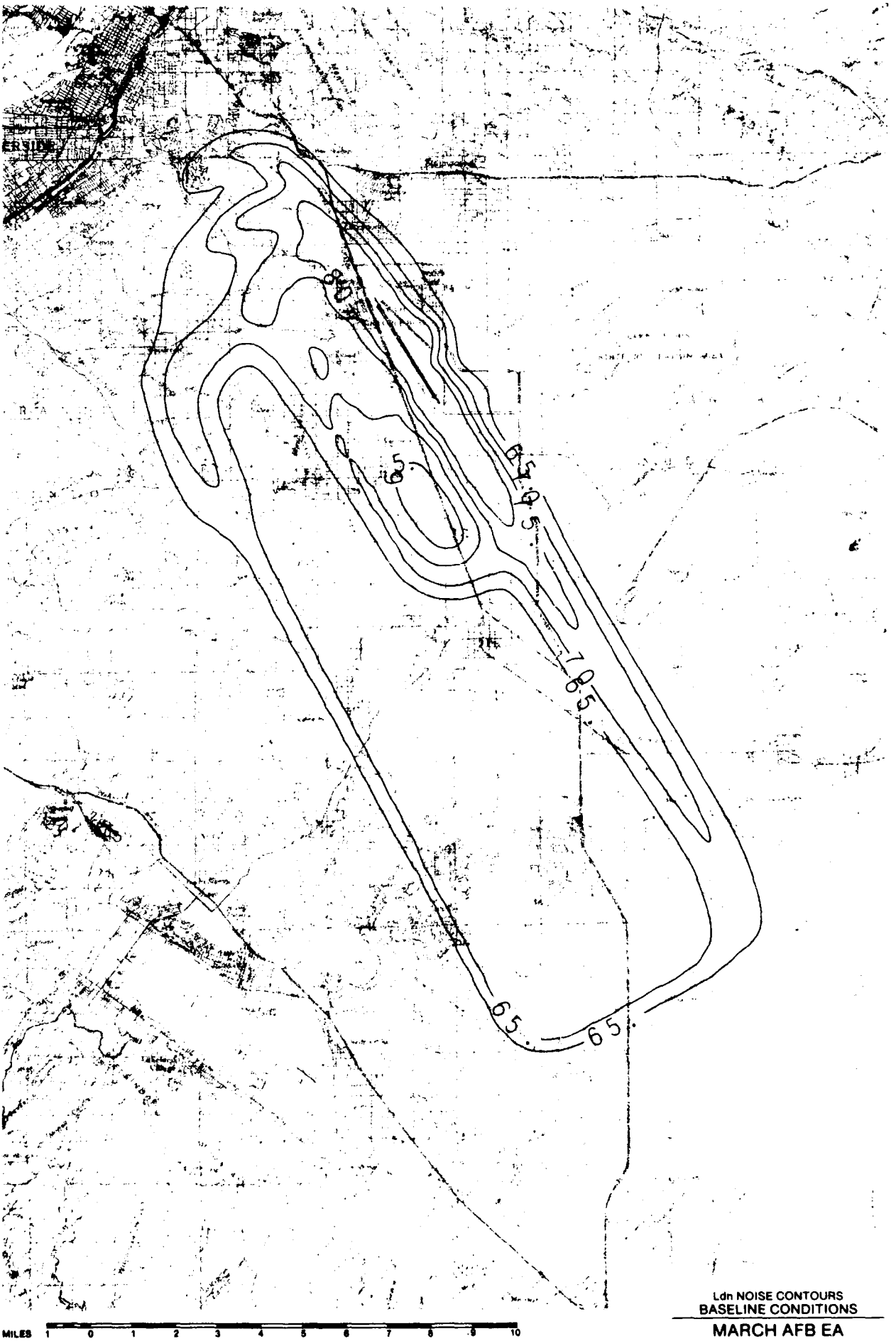


Figure 3-1

Following departures to the north using runway 32, the initial left turn follows a flight path specifically routed to avoid overflight of the small trailer park/housing area located just south of Alessandro Boulevard.

Flight tracks flown under instrument flight rules (IFR) over the Sun City area have been adjusted by the Federal Aviation Administration (FAA) Approach Control to avoid overflights of Sun City. Aircraft flying these routes are directed (vectored) by FAA Approach Control around Sun City. Aircrews have been instructed not to request a short radar route which might take them across Sun City.

Practice take-offs/landings and instrument approaches are conducted at times when citizens in adjacent communities are normally awake. These activities are not scheduled between 10 p.m. and 6 a.m. During this time only mission essential aircraft arrivals and departures are conducted.

Aircrews are regularly briefed and reminded of the prescribed flight patterns and the restrictions associated with each.

3.6.2 Air Safety

Throughout the world, the Air Force conducts an extremely comprehensive flying safety program. Every aspect of flying and aircraft maintenance is governed by safety considerations to avoid the loss of life and property. Every precaution is taken to ensure the airworthiness of each aircraft, the flying proficiency of the aircrews, and safe airborne operations.

Well-maintained aircraft and well-trained aircrews do much to assure that aircraft accidents are avoided. However, despite the best training of aircrews and maintenance of aircraft, history makes it clear that accidents do occur. It is imperative that flights be routed over sparsely populated areas as much as possible to reduce the exposure of lives and property to a potential accident. As civilian flight operations increase, and airspace becomes more limited, the current flight tracks for aircraft arriving and departing March AFB becomes less flexible. It has become increasingly difficult, and impossible in some cases, to change aircraft routing or altitudes to entirely avoid community growth. Thus, the need for controlled community planning becomes readily apparent if conflicts are to be minimized.

Under the AICUZ Program, an expanded Clear Zone and two Accident Potential Zones (APZ I and APZ II) are designated at both ends of March AFB runway. These are based upon past Air Force-wide accidents which have occurred in the vicinity of air installations. This takes into account where an accident was likely to take place and how large an impact area was likely to result from any single accident. The Clear Zone area is 3,000 by 3,000 feet, and within that zone, the overall risk is so high that the necessary land use restrictions would prohibit reasonable economic use of the land. APZ I (3,000 by 5,000 feet) is less critical than the Clear Zone but still possesses a significant risk factor. APZ II (3,000 by 7,000 feet) is less critical than APZ I but still possesses some risk.

SECTION 4

IMPACTS OF THE PROPOSED ACTION

4.0 INTRODUCTION

This section provides an evaluation of the relevant environmental and socioeconomic impacts that would occur as a result of the force structure actions. Topical areas assessed include cultural resources, ecology, socioeconomics, air quality, and aircraft noise and air safety.

4.1 CULTURAL RESOURCES

As stated previously in Section 3, there are no sites or structures on March AFB currently listed on the National Register of Historic Places, however, a number are considered eligible for the register. No known prehistoric sites are located on the base. The force structure action would not result in any land or structure altering activity. Therefore, there is no possibility of affecting any historical resources in the area.

4.2 ECOLOGY

4.2.1 Vegetation

Vegetation is negatively impacted by the various air pollutant emissions discussed previously in Section 3. The force structure action would result in extremely small reductions in these emissions. The reductions in emissions, although small, would be beneficial to vegetation.

4.2.2 Fish and Wildlife

The primary cause of decline in wildlife populations is the loss of suitable habitat. The proposed actions would cause no loss of terrestrial habitat and, therefore, no significant impact on wildlife. Aircraft noise is known to cause a startle response in wildlife, but the accompanying physiological response has not been studied. Noise has been shown to affect the reproduction of various groups of animals. Negative reproductive effects of aircraft noise could potentially decrease populations of wildlife species, but few studies have examined the effects of noise on wildlife at the populations level. Thus, it is likely that the proposed actions with the resulting reduction in aircraft noise would benefit wildlife to a minor degree.

4.3 SOCIOECONOMICS

An EA is required to discuss socioeconomic effects only when such effects are interrelated with natural or physical effects. During preparation of this EA, the Air Force considered whether there might be any indirect biophysical effects which could be attributed to socioeconomic impacts. No such effects or

interrelationships were found. Therefore, it was not necessary for the completeness of the environmental analysis to forecast socioeconomic consequences, and this EA does not attempt to do so.

4.4 AIR QUALITY

The proposed action would impact the air quality emissions in two ways -- a reduction in emissions from aircraft operation out of March AFB and a reduction in emissions as a result of the number of vehicle trips per day to and from work at March AFB. Because the emissions from vehicles are relatively small when compared to aircraft emissions, they are not included. The estimated reductions from aircraft based on the Aircraft Engine Emissions Estimator (final report, 1985), however, are presented in table 4-1. The impact, in percent, when compared to total emissions in Riverside County and the South Coast Air Basin (SCAB) is also presented. These reductions would result in a small beneficial impact to local and regional air quality. This impact is considered insignificant.

Table 4-1
Reduction in Emissions
Tons per Day

	TOG	CO	PM	NOX
Riverside County				
Before	149.0	323.6	137.8	54.2
After	146.9	320.4	137.75	53.8
Percent Reduction	1.4	0.1	0.04	0.7
SCAB				
Before	2100.0	5430.1	1645.2	1039.8
After	2097.9	5427.0	1645.1	1039.4
Percent Reduction	0.1	0.06	0.003	0.04

4.5 AIRCRAFT NOISE AND AIR SAFETY

4.5.1 Aircraft Noise

The proposed force structure actions would result in a substantial reduction in delineated areas of the December 1988 baseline noise contours. The noise contours for the proposed force structure actions are depicted in figure 4-1.

Approximately 28,527 acres would experience a 5 decibel (dB) or greater noise range reduction with the force structure actions. The change with the force structure actions is shown in table 4-2.

As table 4-2 suggests, there would be a change in the land use compatibility guidelines of AICUZ; a large number of acres would be removed from the noise contour zones. A reduction in noise levels and the size of the noise

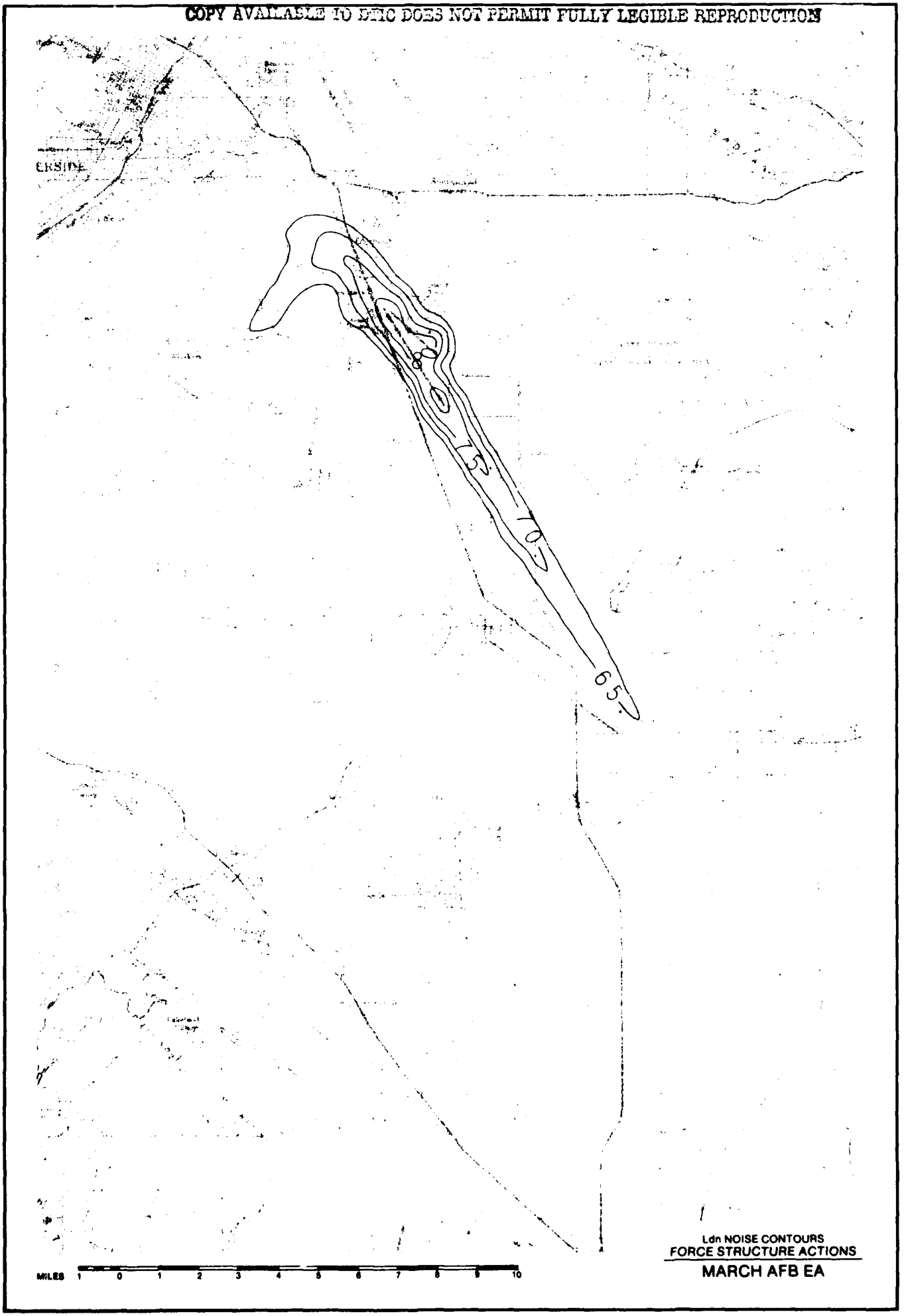


Figure 4-1

contours would ease the compatibility guidelines for all zones. This would be a beneficial impact to land use zoning and future building activity. **However, it should be noted that since the cumulative impacts of these force structure actions will be included in the EIS for the realignment of March AFB, these AICUZ contour changes should NOT be used for land use planning.**

Table 4-2
db Zone Changes
(in acres)

dB Zone	Dec 1988 Baseline	Proposed Force Structure actions	Reduction
65	23,607	8,588	15,019
70	13,999	5,624	8,375
75	4,956	2,296	2,660
80	4,519	2,046	2,473

4.5.2 Air Safety

The proposed force structure actions would reduce the average daily aircraft operations by 59 at March AFB. An operation is either a takeoff or a landing. This represents a 13 percent reduction of the 450 current daily operations. As a result, the opportunity for aircraft accidents would be reduced, which would enhance overall air safety in the March AFB vicinity.

All existing safety measures at March would continue, inclusive of aircraft airworthiness and flying proficiency of the aircrews. The APZs under the AICUZ Program would be maintained as presently delineated and would not be reduced in size. Although the proposed force structure actions would result in a substantial reduction in aircraft operations, the threat of aircraft accidents would still remain as a major concern. Therefore, this benefit is considered to be insignificant.

4.6 CONCLUSION

The regional and local impacts were identified, evaluated, and found to be insignificant. The EA's conclusions and its findings of no significant impact are defensible; therefore, an environmental impact statement is not required.

SECTION 5

CONSULTATION AND COORDINATION

5.0 INTRODUCTION

A list of those organizations or agencies contacted during preparation of the EA is provided in paragraph 5.1. The name of the person contacted and/or the purpose of the contact is also provided where necessary.

A list of preparers of the EA is also provided in paragraph 5.2.

5.1 CONTACTS DURING PREPARATION

Organization	Purpose/Name
California Office of Historic Preservation, Department of Parks and Recreation	Hans Kreutzberg Cindy Woodward
Eastern Information Center, Archaeological Research Unit, University of California at Riverside	Daniel F. McCarthy Karen K. Swope
March Air Force Base	Staff
Moreno Valley Unified School District	Staff
Native American Heritage Commission, State of California	Earl Green
Perris Unified High School District	Staff
Riverside Unified School District	Staff
Scott Air Force Base	Staff
South Coast Air Quality Management District	Air Quality Data - Emission Quantities
South Coast Association of Governments	Traffic Studies, Population, and Employment Projections
State of California, Department of Transportation	Highway Construction Data
Tyndall Air Force Base	Staff
U.S. Fish and Wildlife Service, Laguna Niguel Field Office	Peter Stine

U.S. Army Corps of Engineers Los Angeles District	Area Data-People Contacts/ Marie Cotrell
U.S. Army Corps of Engineers Sacramento District	Area Data-People Contacts/ Patti Johnson]
Val Verde Elementary School District	Dr. Eugene Simms

5.2 LIST OF PREPARERS

Name	Discipline Expertise	Experience	Role in Preparing EIS
Richard Miner	Community Planner, Sociology	15 Years, Water Resources Planning	EIS Director, Reviewer
Richard Gorton	Environmental Resources/ Engineer	19 Years, Water Resources, EIS Studies	Reviewer
Kettie Parks	Community Planner	20 Years, Water Resources Planning, EIS Studies	EIS Manager, Preparer, Environmental Resources
Charles Hillerson	Community Planner Socioeconomic Analysis	15 Years, Water Resources Planning	Socioeconomics Sections
Ellen Cummings	Archeologist	16 Years, Cultural Resources Management, EIS Studies	Historic Resources Sections

REFERENCES

Fields and Silverman Architects, AIA, Preliminary Historical Inventory, March AFB, CA, 1985

South Coast Air Quality Management District, Draft for Quality Management Plan, 1989

South Coast Air Quality Management District, Air Quality Handbook, 1987

U.S. Air Force, March Air Force Base, 1988

U.S. Air Force, March AFB Economic Resource Impact Statement, 1988

U.S. Air Force, Flight Operations Summary, Computer Printouts, 1988

U.S. Air Force, Aircraft Engine Emissions Estimator, 1985

U.S. Air Force, A Guide to Strategic Aircraft Basing, 1986

U.S. Air Force, Air Installation Compatible Use Zone, March AFB, 1983

U.S. Air Force, Special Order 68-066, 1989

U.S. Department of Commerce, County and City Data Book, 1988

U.S. Fish and Wildlife Service, Survey of Stephens' Kangaroo Rat, March AFB, 1989